Docket No.: 072575-0048 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	Customer Number: 41552
ALCORN, ROBERT L., et al.	:	Confirmation Number: 3054
Application No.: 10/643,074	:	Tech Center Art Unit: 2191
Filed: August 19, 2003	:	Examiner: Qian, Songwei

For: INTERNET-BASED EDUCATION SUPPORT SYSTEM, METHOD AND MEDIUM PROVIDING SECURITY ATTRIBUTES IN MODULAR, EXTENSIBLE COMPONENTS

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
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Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed December 7, 2007, wherein Appellants appeal from the Examiner's final rejections of Claims 1-16.

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I. REAL PARTY IN INTEREST

This application is assigned to Blackboard, Inc. by assignment recorded on April 9, 2004, at Reel 014508, Frame 0720.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Claims 1-16 are pending in this application. Claims 1-16 have been finally rejected. It is from the final rejection of Claims 1-16 that this appeal is taken. Claims 1-16 are copied in the Claims Appendix to this Appeal Brief.

IV. STATUS OF AMENDMENTS

No Amendment has been filed subsequent to the September 25, 2007 final Office Action.

The claims copied in the Claim Appendix correspond to the July 19, 2007 Amendment, which was filed in response to the April 19, 2007 non-final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed invention relates to methods and systems for providing an extensible educational system. For example, the method of Claim 1 includes installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system (see paragraphs at p. 17 line 18, p. 17 line 26, p. 24 line 16 and p. 25 line 4; and Figure 1B of written description). An enhanced system functionality is invoked by using the modified user interface (see paragraphs at p. 17 line 18, p. 17 line 26 and p. 24 line 16; and Figure 1B of written description). Specified in the file are one or more roles of a user that can utilize the enhanced system functionality (see paragraphs at p. 17 line 26 and p. 18 line 1 of written description). In addition, a determination is made if the user has rights to utilize the enhanced system functionality based on the role of the user (see paragraph at p. 18 line 1; p. 84 lines 8 to 27; and Figure 47 of written description). If the user has rights, the user is granted access to utilize the enhanced system functionality (see paragraph at p. 18 line 1; p. 84 lines 8 to 27; and Figure 47 of written description).

Another aspect of the claimed invention, per independent Claim 7, is an extensible educational system including a user interface (see paragraph at p. 24 line 4; and Figure 1B of written description), and a plug-in manager configured to add new functionality to the extensible education system (see paragraph at p. 24 line 16; and Figure 1B of written description). The extensible educational system further includes an authentication user interface configured to verify a role of a user in the extensible educational system (see paragraphs at p. 18 line 1 and p. 24 line 16; and Figure 1B of written description), and to grant or deny a user access to the new functionality based on the role of the user in the extensible educational system (see paragraphs at

p. 18 line 1 and p. 24 line 16; and Figure 1B of written description). The role of a user includes at least one of user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor, student and teacher's assistant (see p. 68 line 27 to p. 69 line 5 of written description).

Yet another aspect of the claimed invention, per independent Claim 9, is a method for providing an extensible educational system. The method includes displaying a user interface (see paragraph at p. 24 line 4; and Figure 1B of written description), and invoking a plug-in manager configured to add new functionality to the extensible education system (see paragraph at p. 24 line 16; and Figure 1B of written description). In addition, the method includes invoking authentication user interface. The authentication user interface is configured to verify a role of a user in the extensible educational system (see paragraphs at p. 18 line 1 and p. 24 line 16; and Figure 1B of written description), and to grant or deny a user access to the new functionality based on the role of the user in the extensible educational system (see paragraphs at p. 18 line 1 and p. 24 line 16; and Figure 1B of written description).

Yet another aspect of the claimed invention, per independent Claim 13, is a computer readable medium, which when executed on a computer performs the method steps of Claim 9 (see Figures 1A to 1C and Figure 45 of written description).

VI. GROUNDS OF REJECTION TO BE REVIEWED BY APPEAL

1. Whether Claims 8, 11 and 15 are unpatentable under 35 U.S.C. § 112, first paragraph, for alleged failure to comply with the written description requirement.

2. Whether Claims 1 to 6 are unpatentable under 35 U.S.C. § 103(a) over Phillip Heller and Simon Roberts, "JAVA 2 Developer's Handbook," SYBEX, September 1998 ("Heller") in view of U.S. Patent No. 5,909,589 ("Parker").

3. Whether Claims 7, 9, 10, 12 to 14 and 16 are unpatentable under 35 U.S.C. § 103(a) over Heller in view of Parker, and further in view of U.S. Patent Application Publication No. 2002/0184401 ("Kadel").

4. Whether Claims 8, 11 and 15 are unpatentable under 35 U.S.C. § 103(a) over Heller and Parker in view of Kadel, and further in view of Govi et al. (Venkat Govi, Hernan Equiluz, You Jung Kim and Adrain Sia, "System test plan," June 8, 2002, retrieved from http://dogbert.mse.cs.cmu.edu/mse2002/projects/pamd1/Working%20Document/PUMASystemTestPlan v.1.0.doc on September 4, 2007 ("Govi").

VII. ARGUMENT

1. Rejection of Claims 8, 11 and 15 under 35 U.S.C. § 112, first paragraph, for alleged failure to comply with the written description requirement

The Examiner's Position:

The Examiner asserts that the feature that "the plug-in manager is invoked using the user interface" has no support in the written description or drawings. Office Action, pp. 2-3.

Further, the Examiner objects to Claims 8, 11 and 15 for containing new subject matter in reciting "the plug-in manager is invoked using the user interface." Office Action, p. 2.

Appellants' Position:

The written description and drawings do provide support that "the plug-in manager is invoked using the user interface."

More particularly, the paragraph at p. 23 line 22 and Figure 1B in the originally filed specification describe a three tier architecture with "a user interface tier 1002, platform tier 1003, and data tier 1005." As can be seen in Figure 1B, element 1014 is depicted as a plug-in manager UI within user interface tier 1002. As such, the plug-in manager can be seen to be invoked using the user interface.

In view of the above description, Appellants submit that Claims 8, 11 and 15 are adequately supported by the written description at the time the application was filed.

2. Rejection of Claims 1 to 6 under 35 U.S.C. § 103(a) over Phillip Heller and Simon Roberts, "JAVA 2 Developer's Handbook," SYBEX, September 1998 ("Heller") in view of U.S. Patent No. 5,909,589 ("Parker")

Claim 1

The Examiner's Position:

The Examiner sees Heller at p. 883 line 24 and p. 179 lines 19-22 to disclose (i) installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system. See Office Action, pp. 3-4.

The Examiner further sees Heller at p. 878 lines 23-26 and p. 96 line 12 to disclose (ii) invoking an enhanced system functionality by using the modified user interface. See Office Action, p. 4. In his response to arguments, the Examiner contends that "Heller teaches system functionalities provided by the SmartCard program. When the SmartCard program is installed on a system, it provides enhanced functionalities to the system. So it clearly indicates Heller teaches 'enhanced system functionality' as recited in the claim." See Office Action, pp. 14-15.

The Examiner further sees Heller at p. 878 lines 23-28 and p. 882 lines 27-33 to disclose (iii) specifying in the file one or more roles of a user that can utilize the enhanced system functionality. See Office Action, pp. 4. In his response to arguments, the Examiner contends that "Heller teaches how to use permissions to control a user to access SmartCard's functionalities ... Therefore it clearly indicates that 'permissions' here perform the same function as 'roles' recited in the claim." See Office Action, p. 14.

In addition, the Examiner sees Heller at p. 888 lines 11-12 and p. 878 lines 23-28 to disclose (iv) determining if the user has rights to utilize the enhanced system functionality based

on the role of the user. See Office Action, pp. 4.

Appellants' Position:

Heller does not disclose or suggest (i) installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system, (ii) invoking an enhanced system functionality by using the modified user interface, (iii) specifying in the file one or more roles of a user that can utilize the enhanced system functionality, and (iv) determining if the user has rights to utilize the enhanced system functionality based on the role of the user, as recited in independent Claim 1.

Heller is seen to disclose a general programming book, which explains how to program in JAVA. The portions of Heller cited in the Office Action are seen to relate to an example of a SmartCard program, which Heller uses in order to demonstrate how to use "permissions" in Java. See Heller, p. 878 lines 21-30. The SmartCard program is a program intended to emulate the working of a SmartCard that "provides management of keys, certificates, and medical records." See Heller, p. 878 lines 21-35. As best understood from the pages of Heller referred to in the Office Action, the SmartCard program consists of various source files, one of which is cited in the Office Action at p. 4 lines 7-9, namely, "SmartCardPermission.java." See Heller, p. 878 lines 21-35. The file referenced in Heller called "Smart.jar," which is cited in various parts of the Office Action (e.g., See Office Action, p. 3), appears to be an archive file used in the SmartCard example. See Heller, p. 883 lines 22-35.

Heller does not disclose or suggest a method that comprises (i) installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes

the known API to provide a modified user interface to at least one user of the system, as recited in Claim 1. The Office Action at pp. 3 and 4 asserts that Heller installs a file named "Smart.jar," and that a "GUI" in Heller is equivalent to the "modified user interface" in independent Claim 1. As noted above, "Smart.jar" appears to be an archive file used in the SmartCard program. See Heller, p. 883 lines 22-35. However, the installed file, "Smart.jar," is not seen to utilize the known API to provide a GUI, as the Office Action suggests. See Office Action, p. 4. Moreover, "Smart.jar" is not seen to utilize the known API to provide a GUI "to at least one user of the system," as recited in independent Claim 1. Accordingly, Heller fails to disclose that an "installed file utilizes the known API to provide a modified user interface to at least one user of the system," as recited in independent Claim 1.

The Office Action at p. 3 also makes reference to a file named "MyAppletStuff.jar," and contends that this file utilizes the JAVA API to provide a modified user interface. Appellants respectfully disagree. In particular, "MyAppletStuff.jar" appears to be an archive file used in a MyApplet program. See Heller, p. 179 lines 19-22. However, nothing in Heller is seen to disclose what the MyApplet program is used for. Rather, MyApplet appears to be a general example of a program. As such, Heller is not seen to disclose that "MyAppletStuff.jar" utilizes the known API to provide a modified user interface to at least one user of the system.

Even if Heller was to disclose this feature (a point which Appellants do not concede), Appellants respectfully submit that reliance upon the description of MyAppletStuff.jar in Heller is improper, since this file is not seen to relate to the remaining aspects of Claim 1. In particular, the Office Action is seen to rely heavily upon the permissions described in Heller when comparing Heller's files with the file recited in Claim 1. However, the permissions described in Heller are seen to apply to the SmartCard program, and not to the MyApplet program. As such,

the Office Action is seen to rely on Heller's MyAppletStuff.jar file for one aspect of the claimed elements, while disregarding other aspects of Claim 1 as they relate to MyAppletStuff.jar. Without mention of these other aspects, reliance upon the description of the MyAppletStuff.jar file in Heller is seen to be improper.

Turning to the next feature, Heller does not disclose or suggest a method that comprises (ii) invoking an enhanced system functionality by using the modified user interface, as also recited in independent Claim 1. In his response to arguments (See Office Action, pp. 14-15), the Examiner contends that Heller teaches system functionalities provided by the SmartCard program, and that when the SmartCard program is installed on a system, it provides enhanced functionalities to the system.

Without conceding the correctness of this contention, Heller is still not seen to disclose that its SmartCard program is invoked using a GUI. The Office action at p. 4 lines 7-8 directs attention away from the SmartCard program to the MyApplet program, for the alleged disclosure of invoking functionality using a GUI. However, as noted above, the permissions described in Heller are seen to apply to the SmartCard program, and not to the MyApplet program. Accordingly, Heller would have to disclose that its SmartCard program is invoked using a GUI, and Heller is not seen to disclose this. Rather, Heller is seen to invoke the SmartCard program through text commands. See Heller, p. 882 line 16. Therefore, Heller's method cannot be said to "invoke an enhanced system functionality by using the modified user interface," as recited in independent Claim 1.

Heller does not disclose or suggest a method that comprises (iii) specifying in the file one or more roles of a user that can utilize the enhanced system functionality, as recited in independent Claim 1. In his response to arguments, the Examiner contends that Heller teaches

how to use permissions to control a user to access SmartCard's functionalities, and that the 'permissions' in Heller perform the same function as 'roles' recited in the claim. See Office Action, p. 14. Appellants respectfully disagree.

Heller discloses use of a file "SmartCardPermission.java," which contains the Permission subclass that is used to control access to the SmartCard program. See Heller, p. 878 lines 27-28. However, permissions are not necessarily seen to be one or more roles of a user of the program. In fact, Heller acknowledges that in some cases a process owner, which is the basis on which the operating system will permit or reject a resource access, does not reflect the identity of the requesting person. See Heller, p. 887 lines 14-16. A permission is therefore not the same as an identity, much less a role, of a user. Accordingly, Heller's method cannot be said to "specify in the file one or more roles of a user that can utilize the enhanced system functionality," as recited in independent Claim 1.

Heller also does not communicate a method that comprises (iv) determining if the user has rights to utilize the enhanced system functionality based on the role of the user, as recited in independent Claim 1. Heller is seen to disclose that an Access Control List (ACL) API may be used to determine if a resource access should be granted based on the identify of a user. See Heller, p. 887, lines 17-19 and 25-26. However, the identity of a user is not seen to be the same as the role of a user. Thus, the Office Action fails to show that Heller reveals a method which comprises "determining if the user has rights to utilize the enhanced system functionality based on the role of the user," as recited in independent Claim 1.

In addition, Parker has been reviewed and is not seen to compensate for the deficiencies of Heller. In particular, Parker is seen to disclose a verifier for assessing unique characteristics

exhibits by a user over a period of time (See Parker, Abstract), but not any of foregoing features (i) to (iv).

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03; *see also In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). As discussed above, the Examiner has not established that Heller and Parker, alone or in combination, disclose or suggest (i) installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system, (ii) invoking an enhanced system functionality by using the modified user interface, (iii) specifying in the file one or more roles of a user that can utilize the enhanced system functionality, and (iv) determining if the user has rights to utilize the enhanced system functionality based on the role of the user, as recited in independent Claim 1.

Appellants' disclosure provides the only teaching of foregoing features (i) to (iv). However, the teaching or suggestion to make a claimed combination and the reasonable expectation of success must not be based on Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is readily apparent that the present rejection is based on impermissible hindsight reasoning in view of Appellants' disclosure. As is well established in patent law, however, "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006). The Examiner has not provided articulated reasoning with any rational underpinning to support the obviousness rejection, nor has the Examiner identified any suggestion or motivation to modify Heller or

Parker to include these limitations. Accordingly, *prima facie* obviousness of independent Claim 1 has not been established by the Examiner.

Claims 2 to 6

As discussed above, the Examiner has not established a *prima facie* case of obviousness of independent Claim 1. Claims 2 to 6 depend from independent Claim 1. Consequently, a *prima facie* case of obviousness of Claims 2 to 6 has not been established for at least the reasons set forth above with respect to independent Claim 1, as well as for other reasons. For example, dependent Claim 4 recites the method of independent Claim 1 "wherein the roles comprise at least one of user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor, student and teacher's assistant." Heller and Parker make no mention of "roles," let alone roles comprising "at least one of user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor and teacher's assistant."

3. Rejection of Claims 7, 9, 10, 12 to 14 and 16 under 35 U.S.C. § 103(a) over Heller in view of Parker, and further in view of U.S. Patent Application Publication No. 2002/0184401 ("Kadel")

Claims 7, 9 and 13

As discussed above with reference to independent Claim 1, the Examiner has not shown that Heller and Parker disclose or suggest (i) installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system, (ii) invoking an enhanced system functionality by using the modified user interface, (iii) specifying in the file one or more roles of

a user that can utilize the enhanced system functionality, and (iv) determining if the user has rights to utilize the enhanced system functionality based on the role of the user.

For similar reasons, the Examiner has not shown that Heller and Parker disclose or suggest (i) a plug-in manager configured to add new functionality to the extensible education system, and (ii) an authentication user interface configured to verify a role of a user in the extensible educational system, and grant or deny a user access to the new functionality based on the role of the user in the extensible educational system, as recited in independent Claims 7, 9 and 13.

In addition, Kadel has been reviewed and is not seen to compensate for the deficiencies of Heller and Parker. In particular, Kadel is seen to disclose a framework which is stated to enable data source components to be developed independently of data consumer components. A mediation layer, typically implemented as a group of APIs (application programming interface), handles and defines the mediation and interface between the source and data components. See Kadel, Abstract. However, Kadel is not seen to disclose or suggest (i) a plug-in manager configured to add new functionality to the extensible education system, and (ii) an authentication user interface configured to verify a role of a user in the extensible educational system, and grant or deny a user access to the new functionality based on the role of the user in the extensible educational system, as recited in independent Claims 7, 9 and 13.

Accordingly, *prima facie* obviousness of independent Claims 7, 9 and 13 has not been established by the Examiner.

Claims 10, 12, 14 and 16

As discussed above, the Examiner has not established a *prima facie* case of obviousness of independent Claims 7, 9 and 13. Claims 10, 12, 14 and 16 depend from independent Claims 7, 9 and 13. Consequently, a *prima facie* case of obviousness of Claims 10, 12, 14 and 16 has not been established for at least the reasons set forth above with respect to independent Claims 7, 9 and 13.

4. Rejection of Claims 8, 11 and 15 under 35 U.S.C. § 103(a) over Heller and Parker in view of Kadel, and further in view of Govi et al. (Venkat Govi, Hernan Equiluz, You Jung Kim and Adrain Sia, "System test plan," June 8, 2002, retrieved from http://dogbert.mse.cs.cmu.edu/mse2002/projects/pamd1/Working%20Document/PUMASystemTestPlan v.1.0.doc on September 4, 2007 ("Govi")

Claims 8, 11 and 15

As discussed above, the Examiner has not established a *prima facie* case of obviousness of independent Claims 7, 9 and 13. Claims 8, 11 and 15 depend from independent Claims 7, 9 and 13. Consequently, a *prima facie* case of obviousness of Claims 8, 11 and 15 has not been established for at least the reasons set forth above with respect to independent Claims 7, 9 and 13.

VIII. CONCLUSION

Based upon the arguments submitted above, Appellants respectfully submit that the Examiner's rejections under 35 U.S.C. § 112, first paragraph, and 35 U.S.C. § 103(a) are not legally viable. Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejections of Claims 1-16 under 35 U.S.C. § 112, first paragraph, and 35 U.S.C. § 103(a).

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

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CLAIMS APPENDIX

1. A method for providing an extensible educational system, the method comprising the steps of:

installing on a server a file compatible with a known application program interface (API), wherein the installed file utilizes the known API to provide a modified user interface to at least one user of the system;

invoking an enhanced system functionality by using the modified user interface;

specifying in the file one or more roles of a user that can utilize the enhanced system functionality;

determining if the user has rights to utilize the enhanced system functionality based on the role of the user; and

if the user has rights, granting access to the user to utilize the enhanced system functionality.

2. The method according to claim 1, further comprising the step of storing the one or more roles into a system data repository.

3. The method according to claim 1, wherein the enhanced system functionality is provided by at least one of a hyperlink and an icon.

4. The method according to claim 1, wherein the one or more roles comprise at least one of: user administrator, course administrator, system support, observer, support, portal

administrator, system administrator, instructor, student and teacher's assistant.

5. The method according to claim 1, further comprising the step of denying access to the enhanced system functionality if the user does not have access rights.

6. The method according to claim 1, wherein the file is installed on the server by using a Java archive file.

7. An extensible educational system comprising:

a user interface;

a plug-in manager configured to add new functionality to the extensible education system; and

an authentication user interface configured to verify a role of a user in the extensible educational system, and grant or deny a user access to the new functionality based on the role of the user in the extensible educational system, wherein the role of a user comprises at least one of: user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor, student and teacher's assistant.

8. The system of claim 7, wherein the plug-in manager and the authentication user interface are invoked using the user interface.

9. A method for providing an extensible educational system, the method comprising:

displaying a user interface;

invoking a plug-in manager configured to add new functionality to the extensible education system; and

invoking an authentication user interface configured to verify a role of a user in the extensible educational system, and grant or deny a user access to the new functionality based on the role of the user in the extensible educational system.

10. The method of claim 9, wherein the role of a user comprises at least one of: user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor, student and teacher's assistant.

11. The method of claim 9, wherein the plug-in manager and the authentication user interface are invoked using the user interface.

12. The method of claim 9, wherein the user interface is displayed by installing one or more files on a server.

13. A computer readable medium, which when executed on a computer performs a method for providing an extensible educational system, the method comprising:

displaying a user interface;

invoking a plug-in manager configured to add new functionality to the extensible education system; and

invoking an authentication user interface configured to verify a role of a user in the extensible educational system, and grant or deny a user access to the new functionality based on

the role of the user in the extensible educational system.

14. The computer readable medium of claim 13, wherein the role of a user comprises at least one of: user administrator, course administrator, system support, observer, support, portal administrator, system administrator, instructor, student and teacher's assistant.

15. The computer readable medium of claim 13, wherein the plug-in manager and the authentication user interface are invoked using the user interface.

16. The computer readable medium of claim 13, wherein the user interface is displayed by installing one or more files on a server.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.

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